Serial Number: 09/717,641A

CRF Processing Date: 4/10/2003
Edited by: _____
Verified by: _____ (STIC staff)
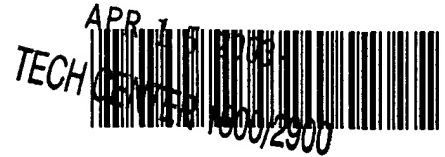
☐ Changed a file from non-ASCII to ASCII

☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.

☐ Edited a format error in the Current Application Data section, specifically: _____

☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____.

☐ Added the mandatory heading and subheadings for "Current Application Data".

☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.

☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: _____

☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: _____

☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: _____

☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.

☐ Inserted colons after headings/subheadings. Headings edited included: _____

☐ Deleted extra, invalid, headings used by an applicant, specifically: _____

☑ Deleted: ☑ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as_____

☐ Inserted mandatory headings, specifically: _____

☐ Corrected an obvious error in the response, specifically: _____

☐ Edited identifiers where upper case is used but lower case is required, or vice versa.

☐ Corrected an error in the Number of Sequences field, specifically: _____

☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.

☐ Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____

☐ Other: _____
_____
_____
_____

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95

1600

RAW SEQUENCE LISTING   DATE: 04/10/2003
PATENT APPLICATION: **US/09/717,641A**   TIME: 21:28:46

Input Set : **N:\Crf4\04092003\I717641A.raw**
Output Set: **N:\CRF4\04102003\I717641A.raw**

```
 1 <110> APPLICANT: Garrard, Lisa J.
 2         Henner, Dennis J.
 3         Bass, Steven
 4         Greene, Ronald
 5         Lowman, Henry B.
 6         Wells, James A.
 7         Matthews, David J.
 8 <120> TITLE OF INVENTION: ENRICHMENT METHOD FOR VARIANT PROTEINS WITH ALTERED
 9         BINDING PROPERTIES
10 <130> FILE REFERENCE: P0645P4D2C3
```
C--> 11 `<140>` **CURRENT APPLICATION NUMBER: US/09/717,641A**
C--> 12 `<141>` **CURRENT FILING DATE: 2000-11-21**
```
13 <150> PRIOR APPLICATION NUMBER: US 08/922,345
14 <151> PRIOR FILING DATE: 1997-09-03
15 <150> PRIOR APPLICATION NUMBER: US 08/463,587
16 <151> PRIOR FILING DATE: 1995-06-05
17 <150> PRIOR APPLICATION NUMBER: US 08/050,058
18 <151> PRIOR FILING DATE: 1993-04-30
19 <150> PRIOR APPLICATION NUMBER: PCT/US91/09133
20 <151> PRIOR FILING DATE: 1991-12-03
21 <150> PRIOR APPLICATION NUMBER: US 07/743,614
22 <151> PRIOR FILING DATE: 1991-08-09
23 <150> PRIOR APPLICATION NUMBER: US 07/715,300
24 <151> PRIOR FILING DATE: 1991-06-14
25 <150> PRIOR APPLICATION NUMBER: US 07/683,400
26 <151> PRIOR FILING DATE: 1991-04-10
27 <150> PRIOR APPLICATION NUMBER: US 07/621,667
28 <151> PRIOR FILING DATE: 1990-12-03
29 <160> NUMBER OF SEQ ID NOS: 108
31 <210> SEQ ID NO: 1
32 <211> LENGTH: 36
33 <212> TYPE: DNA
34 <213> ORGANISM: Artificial sequence
35 <220> FEATURE:
36 <223> OTHER INFORMATION: Synthetic
37 <400> SEQUENCE: 1
38       ggcagctgtg gcttctagag tggcggcggc tctggt 36
40 <210> SEQ ID NO: 2
41 <211> LENGTH: 36
42 <212> TYPE: DNA
43 <213> ORGANISM: Artificial sequence
44 <220> FEATURE:
45 <223> OTHER INFORMATION: Synthetic
```

```
46 <400> SEQUENCE: 2
47         agctgtggct tcgggccctt agcatttaat gcggta 36
49 <210> SEQ ID NO: 3
50 <211> LENGTH: 33
51 <212> TYPE: DNA
52 <213> ORGANISM: Artificial sequence
53 <220> FEATURE:
54 <223> OTHER INFORMATION: Synthetic
55 <400> SEQUENCE: 3
56         ttcacaaacg aagggcccct aattaaagcc aga 33
58 <210> SEQ ID NO: 4
59 <211> LENGTH: 30
60 <212> TYPE: DNA
61 <213> ORGANISM: Artificial sequence
62 <220> FEATURE:
63 <223> OTHER INFORMATION: Synthetic
64 <400> SEQUENCE: 4
65         caataataac gggctagcca aaagaactgg 30
67 <210> SEQ ID NO: 5
68 <211> LENGTH: 24
69 <212> TYPE: DNA
70 <213> ORGANISM: Artificial sequence
71 <220> FEATURE:
72 <223> OTHER INFORMATION: Synthetic
73 <400> SEQUENCE: 5
74         cacgacagaa ttcccgactg gaaa 24
76 <210> SEQ ID NO: 6
77 <211> LENGTH: 23
78 <212> TYPE: DNA
79 <213> ORGANISM: Artificial sequence
80 <220> FEATURE:
81 <223> OTHER INFORMATION: Synthetic
82 <400> SEQUENCE: 6
83         ctgtttctag agtgaaattg tta 23
85 <210> SEQ ID NO: 7
86 <211> LENGTH: 21
87 <212> TYPE: DNA
88 <213> ORGANISM: Artificial sequence
89 <220> FEATURE:
90 <223> OTHER INFORMATION: Synthetic
91 <400> SEQUENCE: 7
92         acattcctgg gtaccgtgca g 21
94 <210> SEQ ID NO: 8
95 <211> LENGTH: 63
96 <212> TYPE: DNA
97 <213> ORGANISM: Artificial sequence
98 <220> FEATURE:
99 <223> OTHER INFORMATION: Synthetic
100 <220> FEATURE:
```

```
      101 <221> NAME/KEY: unsure
      102 <222> LOCATION: 21-22, 27-28, 33-34, 39-40
      103 <223> OTHER INFORMATION: unknown base
      104 <400> SEQUENCE: 8
W-->  105        gcttcaggaa ggacatggac nnsgtcnnsa cannsctgnn satcgtgcag 50
      106        tgccgctctg tgg 63
      108 <210> SEQ ID NO: 9
      109 <211> LENGTH: 24
      110 <212> TYPE: DNA
      111 <213> ORGANISM: Artificial sequence
      112 <220> FEATURE:
      113 <223> OTHER INFORMATION: Synthetic
      114 <400> SEQUENCE: 9
      115        aaggtctcca catacctgag gatc 24
      117 <210> SEQ ID NO: 10
      118 <211> LENGTH: 33
      119 <212> TYPE: DNA
      120 <213> ORGANISM: Artificial sequence
      121 <220> FEATURE:
      122 <223> OTHER INFORMATION: Synthetic
      123 <400> SEQUENCE: 10
      124        atggacaagg tgtcgacata cctgcgcatc gtg 33
      126 <210> SEQ ID NO: 11
      127 <211> LENGTH: 36
      128 <212> TYPE: DNA
      129 <213> ORGANISM: Artificial sequence
      130 <220> FEATURE:
      131 <223> OTHER INFORMATION: Synthetic
      132 <400> SEQUENCE: 11
      133        ggcagctgtg gattctagag tggcggtggc tctggt 36
      135 <210> SEQ ID NO: 12
      136 <211> LENGTH: 12
      137 <212> TYPE: PRT
      138 <213> ORGANISM: Artificial sequence
      139 <220> FEATURE:
      140 <223> OTHER INFORMATION: Synthetic
      141 <400> SEQUENCE: 12
      142        Gly Ser Cys Gly Phe Glu Ser Gly Gly Gly Ser Gly
      143          1             5                  10
      145 <210> SEQ ID NO: 13
      146 <211> LENGTH: 27
      147 <212> TYPE: DNA
      148 <213> ORGANISM: Artificial sequence
      149 <220> FEATURE:
      150 <223> OTHER INFORMATION: Synthetic
      151 <400> SEQUENCE: 13
      152        cggactgggc agatattcaa gcagacc 27
      154 <210> SEQ ID NO: 14
      155 <211> LENGTH: 38
```

RAW SEQUENCE LISTING   DATE: 04/10/2003
PATENT APPLICATION: **US/09/717,641A**   TIME: 21:28:46

Input Set : **N:\Crf4\04092003\I717641A.raw**
Output Set: **N:\CRF4\04102003\I717641A.raw**

```
156 <212> TYPE: DNA
157 <213> ORGANISM: Artificial sequence
158 <220> FEATURE:
159 <223> OTHER INFORMATION: Synthetic
160 <400> SEQUENCE: 14
161        ctcaagaact acgggttacc ctgactgctt caggaagg 38
163 <210> SEQ ID NO: 15
164 <211> LENGTH: 30
165 <212> TYPE: DNA
166 <213> ORGANISM: Artificial sequence
167 <220> FEATURE:
168 <223> OTHER INFORMATION: Synthetic
169 <400> SEQUENCE: 15
170   ·    cgcatcgtgc agtgcagatc tgtggagggc 30
172 <210> SEQ ID NO: 16
173 <211> LENGTH: 66
174 <212> TYPE: DNA
175 <213> ORGANISM: Artificial sequence
176 <220> FEATURE:
177 <223> OTHER INFORMATION: Synthetic
178 <220> FEATURE:
179 <221> NAME/KEY: unsure
180 <222> LOCATION: 33-34, 39-40, 45-46, 51-52
181 <223> OTHER INFORMATION: unknown base
182 <400> SEQUENCE: 16
```
W--> 183   gttactctac tgctttcagg aaggacatgg acnnsgtcnn sacannsctg 50
```
184        nnsatcgtgc agtgca 66
186 <210> SEQ ID NO: 17
187 <211> LENGTH: 64
188 <212> TYPE: DNA
189 <213> ORGANISM: Artificial sequence
190 <220> FEATURE:
191 <223> OTHER INFORMATION: Synthetic
192 <220> FEATURE:
193 <221> NAME/KEY: unsure
194 <222> LOCATION: 19-20, 25-26, 31-32, 37-38
195 <223> OTHER INFORMATION: unknown base
196 <400> SEQUENCE: 17
```
W--> 197   gatctgcact gcacgatsnn cagsnntgts nngacsnngt ccatgtcctt 50
```
198        cctgaagcag taga 64
200 <210> SEQ ID NO: 18
201 <211> LENGTH: 25
202 <212> TYPE: DNA
203 <213> ORGANISM: Artificial sequence
204 <220> FEATURE:
205 <223> OTHER INFORMATION: Synthetic
206 <400> SEQUENCE: 18
207        gcctttgaca ggtaccagga gtttg 25
209 <210> SEQ ID NO: 19
```

```
210 <211> LENGTH: 33
211 <212> TYPE: DNA
212 <213> ORGANISM: Artificial sequence
213 <220> FEATURE:
214 <223> OTHER INFORMATION: Synthetic
215 <400> SEQUENCE: 19
216       ccaactatac cactctcgag gtctattcga taa 33
218 <210> SEQ ID NO: 20
219 <211> LENGTH: 66
220 <212> TYPE: DNA
221 <213> ORGANISM: Artificial sequence
222 <220> FEATURE:
223 <223> OTHER INFORMATION: Synthetic
224 <220> FEATURE:
225 <221> NAME/KEY: unsure
226 <222> LOCATION: 10-11, 22-23, 34-35, 43-44
227 <223> OTHER INFORMATION: unknown base
228 <400> SEQUENCE: 20
```
W--> **229   tcgaggctcn nsgacaacgc gnnsctgcgt gctnnscgtc ttnnscagct 50**
```
230       ggcctttgac acgtac 66
232 <210> SEQ ID NO: 21
233 <211> LENGTH: 58
234 <212> TYPE: DNA
235 <213> ORGANISM: Artificial sequence
236 <220> FEATURE:
237 <223> OTHER INFORMATION: Synthetic
238 <220> FEATURE:
239 <221> NAME/KEY: unsure
240 <222> LOCATION: 19-20, 28-29, 40-41, 52-53
241 <223> OTHER INFORMATION: unknown base
242 <400> SEQUENCE: 21
```
W--> **243   gtgtcaaagg ccagctgsnn aagacgsnna gcacgcagsn ncgcgttgtc 50**
```
244       snngagcc 58
246 <210> SEQ ID NO: 22
247 <211> LENGTH: 65
248 <212> TYPE: DNA
249 <213> ORGANISM: Artificial sequence
250 <220> FEATURE:
251 <223> OTHER INFORMATION: Synthetic
252 <220> FEATURE:
253 <221> NAME/KEY: unsure
254 <222> LOCATION: 17-18, 29-30, 41-42, 53-54
255 <223> OTHER INFORMATION: unknown base
256 <400> SEQUENCE: 22
```
W--> **257   gttactctac tgcttcnnsa aggacatgnn saaggtcagc nnstacctgc 50**
```
258       gcnnsgtgca gtgca 65
260 <210> SEQ ID NO: 23
261 <211> LENGTH: 64
262 <212> TYPE: DNA
```

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 04/10/2003
PATENT APPLICATION: US/09/717,641A   TIME: 21:28:47

Input Set : N:\Crf4\04092003\I717641A.raw
Output Set: N:\CRF4\04102003\I717641A.raw

<u>Please Note:</u>
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

```
Seq#:8;   N Pos.  21,22,27,28,33,34,39,40
Seq#:16;  N Pos.  33,34,39,40,45,46,51,52
Seq#:17;  N Pos.  19,20,25,26,31,32,37,38
Seq#:20;  N Pos.  10,11,22,23,34,35,43,44
Seq#:21;  N Pos.  19,20,28,29,40,41,52,53
Seq#:22;  N Pos.  17,18,29,30,41,42,53,54
Seq#:23;  N Pos.  16,17,28,29,40,41,52,53
Seq#:30;  N Pos.  11,12,14,15
Seq#:31;  N Pos.  15,16,18,19
Seq#:37;  N Pos.  7,8,9
Seq#:101; Xaa Pos. 3
```

VERIFICATION SUMMARY
PATENT APPLICATION: **US/09/717,641A**

DATE: 04/10/2003
TIME: 21:28:47

Input Set : **N:\Crf4\04092003\I717641A.raw**
Output Set: **N:\CRF4\04102003\I717641A.raw**

L:11 M:270 C: Current Application Number differs, Wrong Format
L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:105 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
L:183 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0
M:341 Repeated in SeqNo=16
L:197 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0
L:229 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0
L:243 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0
M:341 Repeated in SeqNo=21
L:257 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0
M:341 Repeated in SeqNo=22
L:271 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0
M:341 Repeated in SeqNo=23
L:474 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:0
L:487 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:0
L:545 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:0
L:1176 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:101
L:1180 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:101 after pos.:0